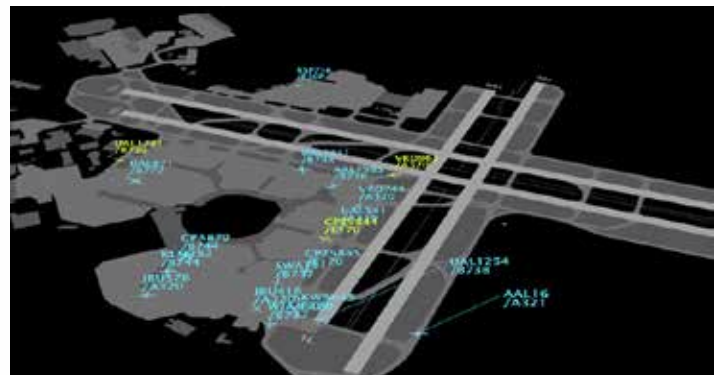


System Wide Information Management (SWIM)

System Wide Information Management ([SWIM](#)) distributes weather and flight planning information to users of the National Airspace System (NAS). SWIM enables airline dispatchers and traffic managers to collaborate on the routing and rerouting of traffic based on real-time information, such as current traffic management initiatives, airport runway configurations and airport deicing activities.

The FAA is implementing SWIM in segments. Available capabilities include the SWIM Terminal Data Distribution System (STDDS), which takes raw surface data and converts it into easily accessible information. STDDS sends surface information from airport towers to the corresponding Terminal Radar Approach Control (TRACON) facility, which makes the information available via SWIM messaging services. Airlines and airports can use this information to streamline surface operations and increase efficiency.

The establishment of protocols and standards is vital to SWIM's effectiveness. The FAA continues to work with other agencies and overseas partners to establish messaging standards for SWIM's Publish/Subscribe and Web services. Initial implementation of several core information models is underway, including the Aeronautical Information Exchange, Weather Information Exchange and Flight Information Exchange Models.



The FAA is planning to unveil several new SWIM capabilities by Fiscal Year 2015, including:

- **Flow Information Publication:** This capability provides subscribers with access to traffic flow information.
- **Flight Data Publication Service:** This capability ensures the consistency of flight data accessed by subscribers. It also provides airspace data, operational data and general information messages.

By 2020, the FAA expects another SWIM capability to be available NAS-wide: an Internet-based cockpit information exchange known as Aircraft Access to SWIM (AAtS). AAtS will enable the transmission of real-time weather and traffic advisory information, such as pilot reports, Notices to Airmen and Aviation Meteorological Reports directly to cockpit displays. It will provide flight crews operating properly equipped aircraft with the same information their dispatch centers receive.



SWIM Products			
Aeronautical Information Management Special Use Airspace (SUA) Data Exchange* Provides notification and status regarding airspace	SUA data, dynamically provided in the Aeronautical Information Exchange Model (AIXM) standard	AIXM SUA definitions	
Integrated Terminal Weather System Data Publication* Provides specialized weather products in the terminal area	Airport Lightning Warning Configured Alerts Forecast Accuracy Forecast Contour Forecast Image Gust Front Terminal Radar Approach Control Facilities (TRACON) Map Microburst TRACON Map Precipitation 5 nm Precipitation Long Range Precipitation TRACON	Storm Motion (SM) Storm Extrapolated Positions (SEP) 5 nm SM SEP Long Range SM SEP TRACON Terminal Weather Text Normal Tornado Alert Tornado Detections Wind Profile Anomalous Propagation (AP) Indicated Precipitation AP Status Gust Front Estimated Time to Impact	Hazard Text 5 nm Hazard Text Long Range Hazard Text TRACON ITWS Status Information Microburst Automatic Terminal Information Service (ATIS) Runway Configuration Storm Motion 5 nm Storm Motion TRACON Terminal Weather Text Special Wind Shear ATIS
Corridor Integrated Weather System Data Publication* Provides specialized 3-D storm related weather information in the en route area	Vertically Integrated Liquid (VIL) Mosaic (1km resolution) VIL 2 hour Forecast Echo Tops Mosaic (1 km resolution) Echo Tops 2 hour Forecast Satellite Mosaic	Storm Info: Echo Top Tags Storm Info: Leading Edges Storm Info: Motion Vectors VIL Forecast Contours (Standard Mode) VIL Forecast Contours (Winter Mode)	Echo Tops Forecast Contours Growth and Decay Contours Forecast Accuracy: Echo Tops Forecast Accuracy: Std. Precip Forecast Accuracy: Winter Precip
Weather Message Switching Center Replacement (WMSCR) Publications Provides national weather service textual aviation weather products	Transmission of voice Pilot Reports (PIREP) to WMSCR	Stored PIREPs	Altimeter settings
SWIM Terminal Data Distribution Systems* Collects and publishes data from 100+ airports	Airport Surface Detection Equipment, Model X streaming data service and runway visibility data	Surface Movement Events Runway Visual Range Data	Tower Departure Events
Enhanced weather information network system	Current Icing Product Weather Research and Forecasting-Rapid Refresh Model Data North American Mesoscale Model Data Global Forecast System Model Data	Airmen's Meteorological Information National Convective Weather Forecast National Convective Weather Diagnostic	Aviation Routine Weather Report Significant Meteorological Information Collaborative Convective Forecast Product
Weather and Radar Processor (WARP) Publications	Harris Weather Data Service Product Set	WARP Maintenance and Sustainment Services	Next Generation Weather Radar
Notices to Airmen (NOTAM) Distribution Service*	Digital NOTAMs AIXM 5.1		
Time Based Flow Management (TBFM) Information Service*	TBFM Information Service - Provides metering information about an aircraft: flight plan (relevant subset), Scheduled Time of Arrival, Estimated Time of Arrival, Meter Reference Elements Assignments, airport configuration information, per TRACON, satellite airport configurations, etc.		
Flow Information Publication*	Flow Constrained Area Airspace Flow Program	Aeronautical Situational Display to Industry Ground Delay Program	Ground Stops Reroutes Advisories
Flight Data Publication*	Flight Data Publication Service - Flight Plan information, Flight Amendment Information, Converted Route Information, Cancellation Information, Departure Information, Aircraft Identification Amendment Information, Hold Information, Progress Report Information, Flight Arrival Information, Flight Plan Update Information, Expected Departure Time Information, Position Update Information, Tentative Flight Plan Information, Tentative Aircraft identification Amendment Information, Tentative Flight Plan Removal, Tentative Flight Plan Amendment Information, Track Information, Drop Track Information, Interim Altitude Information, Automated Radar Terminal System Flow Control Track/Full Data Block Information2, Beacon Code Reassignment, Beacon Code Restricted, Flight Plan Data Bank Fourth Line Information, Point Out Information, Inbound Point Out Information, Handoff Status Airspace Data Publication Service - Sector Assignment Status, Route Status, Special Activities Airspace, Altimeter Setting Operational Data Publication Service - Traffic Count Adjustment, Instrument Approach Count Adjustment, Sign In Sign Out, Beacon Code Utilization, Geographic Beacon Code Utilization General Information Message Publication Service - General Information		

*Service in development and on-ramping process

